

CORRESPONDENCE

Comments on "The Hurricane Season of 1958"

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In a recent article [1] the Staff, Weather Bureau Office, Miami, Fla., examined the interaction between hurricanes Helene and Ilsa, 1958, and suggested that their relative motion had been counterclockwise. Reexamination of the data shows that the relative motion was clockwise and that some changes should be made in table 1 and figure 7 of the article to take into account the following items:

1. The motion of Ilsa relative to the midpoint must be exactly equal in magnitude but opposite in direction to the motion of Helene relative to the midpoint. This follows because by definition the midpoint remains the same distance from each of the storms. Thus, in table 1 in the columns headed "Ilsa—Midpoint" and "Helene—Midpoint," the two courses at each time should differ by 180° and the two speeds should be equal.

2. The speed of the midpoint cannot exceed the arithmetic mean of the speeds of Helene and Ilsa. Thus, in table 1, under the column headed "midpoint," the speed of 9.6 knots at 0000 GMT on the 27th is not consistent with Ilsa's motion of 335° , 8 knots and Helene's motion of 305° , 10 knots. The midpoint, whose motion is the vector mean

of the motions of Helene and Ilsa, should have a speed less than 9 knots.

3. The relative motions of Helene and Ilsa should not be considered with reference to a west-east line, as in figure 7 of the article, but with reference to the line connecting their centers at the beginning of the period, i.e., a line oriented approximately northwest-southeast. The correction of figure 7 by properly reorienting the dashed lines shows that the centers of the two storms had a clockwise, converging relative motion during the last 36-hour period covered by table 1.

It is not suggested here that the concept of interaction between vortices, which calls for counterclockwise relative motion, is not valid, but in this particular case, during the 36-hour period, other factors were exerting a greater influence to produce a net clockwise relative movement of the hurricanes.

REFERENCE

1. Staff, Weather Bureau Office, Miami, Fla., "The Hurricane Season of 1958," *Monthly Weather Review*, vol. 86, No. 12, December 1958, pp. 477-485.